

of country — Near the place I found the Hibiscus & amongst the mountains I found many fine plants — the Hibiscus and a few others are figured in Hooker's continuation of Curtis. I think in the year 43 several are figured in Sir W. J. Hooker's *Icones plantarum*. One is a leguminous tree which Sir W. J. H. has honored me by calling after my name. I have seen none of these figures, as I have scarcely been in England since.

When the gold was first discovered in California. I went there — I spent all the time collecting, that I could not mine — My Herbarium was all lost — I sent a quantity of seeds to Europe according to former promises — I also sent a collection of reptiles and Coleopterous insects to the British Museum — I suppose they were also lost as I have heard nothing of them since — I have sent several collections of Coleoptera to Milby, the great Entomologist of Liverpool — As I have never heard anything of them since — I have great reason to believe they were also lost —

If you have a friend or acquaintance that is interested in Coleoptera I have a small bottle at his service, which I have collected on my own farm, & would feel happy to forward the first opportunity.

I am sir, with much respect, your most obedient servant.

Joseph Burke

Evidently Burke was in California in 1849 or 1850 and later moved to Harrisonville, Cass County, Missouri and lived there on the 29th of September 1853.

This "raises the curtain" for Burke for five years, ten months and twenty-three days.

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A NEW GOSSYPIUM FROM MICHOCAN, MEXICO

HOWARD SCOTT GENTRY

Gossypium lobatum sp. nov. Arbor 6–9 m. alta; truncus ca. 2 m. longus, 15–20 cm. diam. cortice griseo; rami badii, graciles, patuli, paucipunctati; lamina folii 3–5-lobata, cordata, 7–12 cm. longa et subaequilata vel latior, stellato-pubescent, apice, acuminata; pedunculi 7–9 mm. longi, glabri, bracteolis ovatis obtusis, glabris, persistentibus, 4–5 mm. longis, lignosis; calyx 5-lobatus, campanulatus, 20–22 mm. longus, lobis 9–10 mm. longis, triangulo-lanceolatis; corolla punicea, 5–5.5 cm. longa, tubiformis, intra ad basim purpurea; capsula 3-loculata, 25–30 cm. longa; semina oblonga angustissima ca. 1 cm. longa dense et longe pilosa pilis crispatis pallidis.

Slender tree 6–9 m. tall with single stem ca. 2 m. high, 15–20 cm. in diameter, bark light gray on trunk, dark or reddish-brown on branches and young stems with conspicuous scattered lenticels, these transversely elongate or 1–2 mm. broad parallel to horizontal ridges; branches slender, flexuous, spreading, the nodes remote, sparsely dotted with light-colored

round lenticels, glabrate, the young twigs stellate-pubescent; petioles stellate-pubescent, 2–4 cm. long, abscising at base; leaf blades 3–5-lobed, broader than long, mostly 7–12 cm. long (from apex of petiole), 8–14 cm. broad, the central lobes acuminate, stellate-pubescent above and below, paler below; venation primarily 5-palmate, but lower pair conspicuously weaker and frequently anastomosing above without lobation; flowers axillary in the 2–3 distal nodes, 1–several at a node; pedicels 7–9 mm. long, glabrous, abscising at the base; bracteoles ovate-obtuse from a triangular base, glabrous, striate and gland-dotted, 4–5 mm. long, persistent, lignified in age; calyx at anthesis campanulate, 20–22 mm. long, the tube ca. 12 mm. long, densely long-stellate-pubescent, the lobes 9–10 mm. long, triangular-lanceolate, equal, ochroleucous, sparsely stellate-pubescent, sparsely gland-dotted; corolla 5–5.5 cm. long, tubular in form with strictly imbricate petals, finely gland-dotted and stellate-pubescent externally, light pink with a deep purple fimbriated spot covering lower half within; androecium 2.5–3 cm. long; apical filaments longer than the proximal ones; capsules 3-locular, 25–30 cm. long, narrowly ovoid, acuminate to obtusely beaked, densely rugose-punctate towards apex, less so below, the valves rather thin; seeds narrow, elongate, short-linted with fibers 2–4 mm. long, ca. 10 mm. long, 2–2.5 mm. in diameter at middle, tapered, the raphe forming a naked groove nearly as long as the seed; seed coat dark brown, smooth, waxy.

Type. Canyon del Marques at about 500 m. elevation, along highway between Uruapan and Apatzingan, Michoacan, Mexico, October 22, 1952, *Gentry 12314* (U. S. Nat. Herb. 2189410). Additional material used in the diagnosis from the same population is fruiting material collected May 12, 1951, *Gentry 10450* (U. S. Nat. Herb. 2189412). Seed of this collection grown at Iguala, Guerrero, produced the flower, *Kerr s.n.* (U. S. Nat. Herb. 2189413).

The specific name, *lobatum*, refers to the lobes of the calyx, which are conspicuously larger than those of other members now known in the genus.

This species belongs in Hutchinson's section *Erioxyla* (1947) and is closely related to *Gossypium aridum* (Rose and Standley) Skovsted (1934, p. 422; 1935). It is distinguished from the latter by: (1) the lack of spur-branchlets, (2) the broad lobate leaves (vs. entire small leaves), (3) the glabrous pedicel and involucre (vs. densely pubescent), and (4) the large campanulate, deeply lobed, long-pubescent calyx (vs. smaller, cupulate, short-lobed, short-pubescent). It is distinguished from *G. aridum* and from all other species of *Gossypium* by the yellowish-green foliage, by the large deeply lobed, long-pubescent calyx, and by the slender elongate seeds, to list only the more distinct characters. Table 1 compares its calyx characters with closely and distantly related species. It is of interest that the polyploid *G. hirsutum* with $n = 26$ chromosomes more closely approaches the *lobatum* calyx in size and lobing than any other

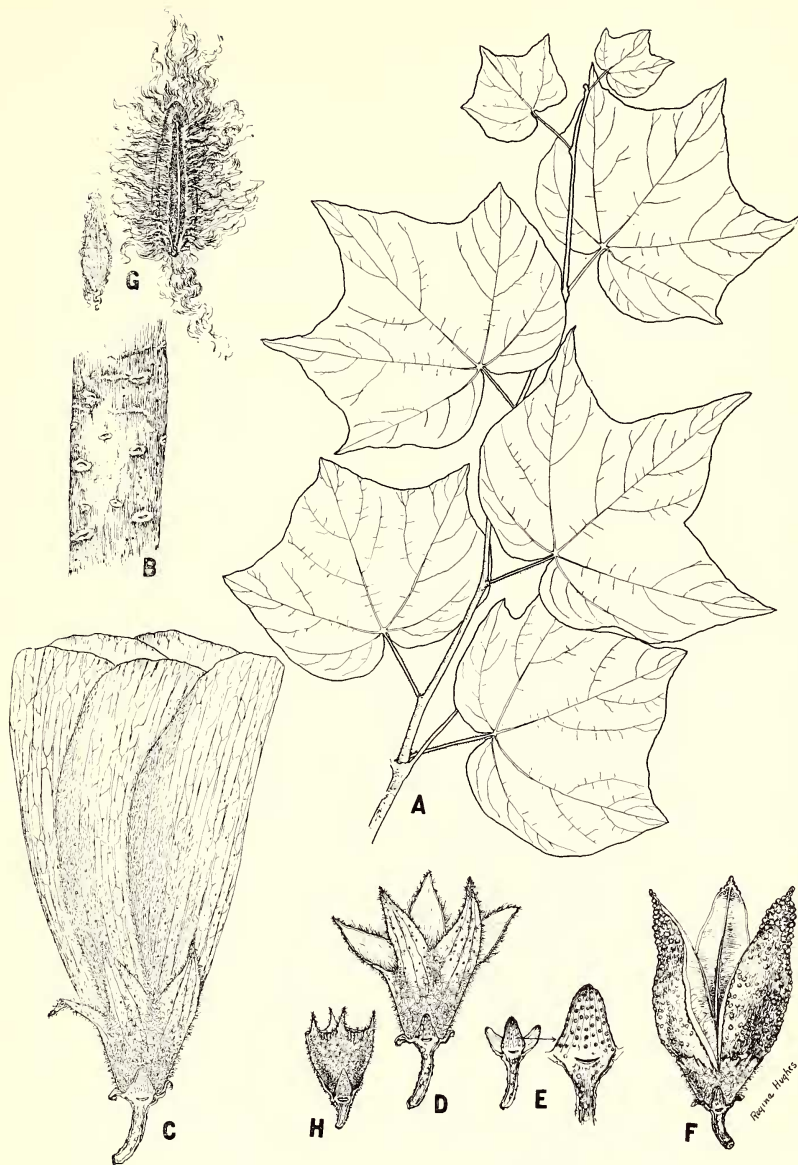


FIG. 1. *Gossypium*. A-G, *Gossypium lobatum*: A, foliage branch, $\times \frac{1}{3}$. B, section of bark, $\times 2$. C, flower, $\times 1$. D, calyx, $\times 1$. E, involucre, $\times 1$ and $\times 2$. F, capsule, $\times 1$. G, seed, $\times 1$ and $\times 2$. H, *Gossypium aridum*, calyx, $\times 1$.

species. *Gossypium barbadense* also has 26 chromosomes, while the rest of the listed species are considered to have but 13 chromosomes.

Calyces are compared at the anthesis stage as the persistent calyx of *Gossypium* is accrescent and frequently distorted by capsular growth. Measurements were taken from dried herbarium material of several specimens in each case, except for *G. lobatum*, where only one flower was available. *Gossypium lobatum* and *G. aridum* are together distinguished by densely pubescent calyces. The remainder are essentially glabrous, having in a few cases a few trichomes towards the base or distally on the lobes, as in *G. hirsutum*. It appears that all American species can be easily separated by the characters of the involucre and calyx alone.

TABLE 1. CALYX FEATURES IN SOME AMERICAN SPECIES OF GOSSYPIUM

Species	Tube length	Lobe length	Lobe regularity	Relative pubescence
<i>lobatum</i>	12 mm.	10 mm.	equal	long-pubescent
<i>aridum</i>	5-8	1-3	variable	short-pubescent
<i>armourianum</i>	5	1-2	"	glabrous
<i>harknessii</i>	5-7	1-3	"	"
<i>thurberi</i>	2-3	0-1		"
<i>davidsonii</i>	4-5	0		"
<i>hirsutum</i>	7-10	2-4	subequal	"
<i>barbadense</i>	6	0		"

Gossypium aridum and *G. lobatum*, which have distinct single boles, are the only true tree forms known in the genus. Among American species they are also distinguished by the pink corolla, the elongate androecium (which they share in lesser degree with the Australian section *Sturtiana*), the simple persistent lignified bracteoles, and the slender long-pubescent seeds. *Gossypium lobatum* is more extreme in the latter character. *Gossypium aridum* is Populus-like in habit and is reported by one collector to reach 15 m. in height (*Gentry 5498*), exceeding its associates in the Sinaloa Thorn Forest. *Gossypium lobatum* in the juvenile stage is a low, spreading, broad-leaved shrub, a habit form quite distinct from the slender, monopodial, smaller-leaved, erect tree it becomes in maturity. The writer also observed it a few miles west of Apatzingan, where it was a scattered small-tree component of the semiarid Short-tree Forest over the dark, heavy, argillaceous soil derived from volcanic rocks. Further exploration in the Balsas River basin would doubtless find it present beyond the environs of Apatzingan.

Both these trees are drought deciduous and become leafless during winter. The area of *G. aridum* in central Sinaloa is visited in some years by light winter rains. In such seasons the trees may respond with a flush of leaves, which for lack of moisture remain pauperized. Both trees flower

in the late winter and spring during the prolonged dry season while they are generally leafless, releasing their seeds previous to the summer rains beginning in June.

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A SUMMARY OF THE NOMENCLATURE OF DOUGLAS-FIR, PSEUDOTSUGA MENZIESII

VLADIMIR J. KRAJINA

EDITOR'S NOTE. In January, 1956, the Editors of MADROÑO received from Dr. Krajina a manuscript presenting a careful and exhaustive treatment of "The Nomenclatural Problem of Common Douglas-Fir," and substantiating the adoption of the combination *PSEUDOTSUGA MENZIESII* (Mirb.) Franco, made in 1950. While Dr. Krajina's manuscript was in the hands of the Editorial Board, a series of papers, treating various facets of the same subject and finally reaching the same conclusion as had Dr. Krajina, appeared in "Taxon" [5(1, Febr.): 4-7, 18, 19, 1956; 5(2, Apr.): 38-39, 1956; 5(3, May): 41-43, 43-46, 1956]. Dr. Krajina has consented, therefore, to the deletion of the first two-thirds of his manuscript in which he covered in great detail the history of the problem. The balance of his paper, in slightly revised form, is published herewith.—Ed.

There are not many species nomenclaturally so interesting as the common Douglas-fir. A resume of the events involved with the first collections made of this tree sheds light on some of the sources of the confusion concerning the proper name which should be applied to it.

About the discovery of *Abies Douglasii* (Sabine mss.) Thomas Nuttall (1865) wrote as follows: "This species was originally discovered by Mr. Menzies at Nootka Sound, in 1797, during the voyage of Captain Vancouver, and from a specimen without cones or flowers was published a description by Mr. Lambert, under the name of *Pinus taxifolia*, . . ." Sargent (1898), who, in his "Silva of North America," accepted the name *Pseudotsuga mucronata* (Raf.) Sudw., makes the following statement about its early history, "*Pseudotsuga mucronata* was discovered in 1791 on the shores of Nootka Sound by Archibald Menzies, the surgeon of Vancouver in his voyage of discovery; it was first described in the journal of Lewis and Clark. Rediscovered by David Douglas in 1827, it was introduced by him into the gardens of Europe, where it has become one of the